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EXAMINER

CHANKONG, DOHM

ART UNIT	PAPER NUMBER
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2452

NOTIFICATION DATE	DELIVERY MODE
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ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/058,268	Applicant(s) EDWARDS ET AL.	
	Examiner DOHM CHANKONG	Art Unit 2452	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 March 2011.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,4,7-12,14,15,18-23,25,26 and 29-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3, 4, 7-12, 14, 15, 18-23, 25, 26, and 29-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This non-final rejection is in response to Applicant's amendment filed on 3/21/2011. Applicant amends claims 1, 3, 4, 7-12, 14, 15, 18-23, 25, 26, 29-33, adds claims 34-36, and previously cancelled claims 2, 5, 6, 13, 16, 17, 24, 27, and 28. Accordingly, Applicant presents claims 1, 3, 4, 7-12, 14, 15, 18-23, 25, 26, and 29-36 for further examination.

I. RESPONSE TO ARGUMENTS

Applicant's arguments and amendment with respect to claims 1, 3, 4, 7-12, 14, 15, 18-23, 25, 26, and 29-36 have been carefully considered but the amendment does not overcome the *Reed* and *Hanson* combination for the reasons discussed below.

Applicant amends independent claims 1 and 19 to recite that the data type is "independent of an operating system domain and at least one peripheral domain." Applicant amends independent claim 8 to recite that an interface is independent of an operating system type and at least one peripheral type and independent claims 12, 23, and 30 to recite instructions are independent of an operating system identification and at least one peripheral identification.

A. The new limitations of claims 1 and 19 do not overcome *Reed* and *Hanson*.

Applicant argues that *Hanson* does not disclose that the data type is independent of an operating system and peripheral domain because *Hanson* discloses data types that are dependent on different operating system and peripheral domains (e.g., Ricoh, NEC, Microsoft, Adobe). This argument does not apply to independent claims 8, 12, 23, and 30 which do not recite the "data type" limitation.

There is no explicit description in the specification for this particular limitation. The only described connection between data types and domain interfaces is in describing that “[t]he present invention allows components 20-24 using the same or different communication protocols and/or data types to transfer data between themselves without having a priori knowledge of any domain-specific interfaces” [Applicant’s publication 20030145089, 0018].

The foregoing section suggests that the data type is “independent” of any domain-specific interfaces (e.g., operating system domain or peripheral domain) in the sense that the devices transferring the data types do not need to be aware of the domain interfaces prior to transfer of the data. That is, the data types are separate from the interfaces used to transfer the data between the components

The new limitation is therefore interpreted as providing the data types separate from (i.e., independently) of the interfaces used to transfer the data. *Hanson* teaches this interpretation of the limitation.

Specifically, *Hanson* discloses that exchanging a device driver that comprises domain-specific interfaces between a peripheral (i.e., Applicant’s second component) and host computer (i.e., Applicant’s first component) [column 2 «lines 35-44»]. Thus, as in Applicant’s invention, *Hanson’s* host computer is able to transfer data to the peripheral without having a priori knowledge of the peripheral’s interface. That is, the host computer retrieves the peripheral’s interface just prior to communicating with the peripheral and therefore did not have prior knowledge of the interface.

Hanson then teaches later selecting different data types based on the options provided in the device driver [Fig. 6 «item 72a» | column 7 «lines 20-25»]. Because *Hanson* discloses that

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the components may transfer data of different data types between themselves without having a priori knowledge of the domain-specific interfaces, *Hanson* teaches the new limitation as claimed.

Another potential interpretation of the limitation provided by the specification is that the data types are embodied as MIME data types [0031]. Based on this disclosure, it also seems reasonable to interpret the new limitation as referring to MIME data types. *Reed* discloses this alternative interpretation [column 22 «lines 56-59» | column 27 «lines 2-13»].

For the foregoing reasons, both *Reed* and *Hanson* disclose the limitation as claimed. The examiner suggests that Applicant amend the claim language to be more commensurate with Applicant's specification to avoid the alternative interpretations discussed above.

B. The new limitations of claim 8 do not overcome *Hanson*.

Instead, claim 8 recites that the interface is independent of the operating system type and peripheral type. As set forth in the § 112 rejection below, this limitation does not find written support in Applicant's specification. Applicant's specification (and claim) does recite that the interface comprises object-oriented mobile code such as Java [see Applicant's publication 20030145089, 0035]. Thus, the examiner assumes that any Java-implemented interface will meet the requirement of being independent of the operating system and peripheral type.

Based on this interpretation, *Hanson* reads on the new limitation because *Hanson* discloses that his device driver is implemented as object-oriented mobile code such as Java [column 3 «lines 37-41»]. Therefore, Applicant's amendment to claim 8 does not overcome *Hanson*.

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C. The new limitations of claims 12, 23, and 30 do not overcome *Hanson*.

Claims 12, 23, and 30 recite instructions that are independent of an operating system identification and peripheral identification. As set forth in the § 112 rejection below, this limitation does not find written support in Applicant's specification. Applicant's specification recites that the instructions "may be expressed as executable programs written in a number of computer programming languages, such as BASIC, Pascal, C, C++, C#, Java, Perl, COBOL, FORTRAN, assembly language, machine code language, or any computer code or language" [Applicant's publication 20030145089, 0035].

Based on this description, the examiner interprets the claimed instructions as a Java program. *Hanson* reads on the new limitation because *Hanson* discloses that his device driver is implemented as object-oriented mobile code such as Java [column 3 «lines 37-41»]. Therefore, Applicant's amendment to claims 12, 23, and 30 do not overcome *Hanson*.

III. CLAIM REJECTIONS – 35 U.S.C. § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

A. Claim 8-12, 14, 15, 18, 23, 25, 26, and 29-33 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement.

The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time

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the application was filed, had possession of the claimed invention. In particular, there is no written description for the new limitations in independent claims 8, 12, 23, 30, and 35.

Applicant's specification does not provide support for an interface that is independent of an operating system type and at least one peripheral type and instructions that are independent of operating system identification and peripheral identification.

Moreover, claim 30 is rejected for having confusing and contradictory amendment markings: "~~executed~~ ~~executing~~ instructions on the first component or the second component respectively, the component to facilitate file access and printing to the plurality of components prior to initiating a data transfer." There are terms that are both underlined and highlighted which is confusing. Also, because the "instructions" has been amended out of the claim, claim 30 also lacks proper antecedent basis for "the instructions."

IV. CLAIM REJECTIONS - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

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4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

A. Claims 1, 3, 4, 7-12, 14, 15, 18-23, 25, 26, and 29-36 are rejected under 35 U.S.C § 103(a) as being unpatentable over *Reed et al*, U.S Patent No. 6.345.288 [*“Reed”*], in view of *Hanson*, U.S. Patent No. 6.148.346.

All citations in the following claim mappings are to *Reed* unless otherwise noted.

Claim Interpretation for "the data type is independent of an operating system domain and at least one peripheral domain"

There is no explicit description in the specification for the limitation that the data type is independent of the operating system and peripheral domain. The specification provides two possible interpretations of the limitation. See section II(A) for how the limitation is interpreted.

Claims 1, 8, 12, 19, 23, and 30

As to claim 1, *Reed* as modified by *Hanson* discloses a system, comprising:

a processor [column 13 «lines 12-18»];

a memory [column 13 «lines 12-18»];

a first component comprising a data object [Figure 1 | column 7 «line 59» to column 8 «line 3» | column 105 «line 66» to column 106 «line 16» where : *Reed*'s distribution service object is analogous to Applicant's data object];

a universal data interface comprising object-oriented mobile code [*Hanson*, column 3 «lines 37-41»: the device driver is written in Java and providers for “dynamic connection” between devices (i.e., a universal interface)], wherein the object-oriented mobile code is transmitted between a plurality of components [*Hanson*, column 2 «lines 36-39»: transmitting device drivers between a computer and peripheral device (i.e., components)] and instructions of the first component to facilitate file access [column 3 «lines 21-41»: improving upon prior art

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file transferring by allowing dynamic connection] and printing to the plurality of components prior to initiation of a data transfer [*Hanson*, column 5 «lines 26-43»],

wherein the data object controls the universal data transfer interface [column 105 «line 66» to column 106 «line 16»],

wherein, in response to execution, the instructions return a data type supported by the first component [*Hanson*, Fig. 6A «item 72a»: returning different data types supported by the printer (e.g., Postscript, PCL, Printing System] and device type and operating status of the first component [*Hanson*, Fig. 5: returning printer types | column 5 «lines 33-36»: returning status of the printer], thereby facilitating the first component to negotiate with a second component to select a transfer medium for transfer of data of the data transfer between the first and second components based on the data type [column 12 «lines 44-50» | column 14 «lines 39-60» & *Hanson*, Fig. 5: disclosing different “emulations” which consist of the data types supported by each printer (e.g., HDE/Meister supports Postscript file type)], wherein the data type is independent of an operating system domain and at least one peripheral domain [*Reed*, column 22 «lines 56-59» | column 27 «lines 2-13» & *Hanson*, column 2 «lines 35-44» | Fig. 6 «item 72a» | column 7 «lines 20-25»]; and

an intermediary component configured to invoke the universal data transfer interface to request for and receive a data transfer session object (DTSO) [Figure 1 | Figure 28 | column 12 «line 63» to column 13 «line 3» | column 14 «lines 43-53» | column 86 «lines 64-66» : transferring of the message object with the communications object and *Reed*’s distribution server corresponds to the intermediary component. The distribution server facilitates transferring of the

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DTSO from the first component (provider computer) to the second component (consumer computer)] and to transfer the DTSO to the second component [column 98 «lines 14-24»: where :the communications object is sent using the methods (interface) of the distribution service object],

wherein the DTSO includes source-specific object-oriented mobile code that is interpreted and executed by the second component [*Hanson*, column 3 «lines 37-41»: & *Reed*, column 8 «lines 54-56» | column 17 «lines 26-46»: *Reed*'s communications object is analogous to Applicant's claimed DTSO],

wherein the DTSO is invoked by the second component to transfer the data between the first component and the second components [column 8 «lines 6-19» | column 17 «lines 25-28» | column 67 «lines 17-65» | column 70 «lines 51-67» where : *Reed*'s communications object is analogous to Applicant's claimed DTSO & *Hanson*, column 3 «lines 26-41»].

As indicated in the foregoing mapping, *Reed* does not expressly disclose (A) that a universal data interface or DTSO comprises object-oriented mobile code nor does *Reed* disclose (B) instructions that return data types supported by the first component, device types, or operating status of the component; or (C) that the data type is independent of an operating system domain and at least one peripheral domain. However, both features were well known in the art at the time of Applicant's invention as evidenced by *Hanson*.

A. *Hanson* discloses a universal data interface and a DTSO comprising object-oriented mobile code.

In a similar field of invention to *Reed*, *Hanson* is directed to a system for allowing communication between various devices in a system [*Hanson*, abstract & *Reed*, abstract].

Hanson and *Reed* are both directed for allowing different devices to discover information that is

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used to transfer files to another device [*Hanson*, column 1 «line 55» to column 2 «line 5» & *Reed*, column 8 «lines 21-44»]. Specifically, they both disclose one device transferring a communication object to another device where the object is used to initiate the transfer [*Hanson*, column 2 «lines 1-5»: device driver passed between devices & *Reed*, column 8 «lines 52-64»].

As cited above, *Hanson* further discloses a universal data and a DTSO (i.e., *Hanson*'s device driver) comprising object-oriented mobile code (i.e., Java) which allows disparate devices to transfer files and initiate printing. It would have been obvious to one of ordinary skill in the art to have modified *Reed* to include *Hanson*'s universal data interface and DTSO comprising mobile object-oriented code. One would have been motivated to modify *Reed* because *Hanson* discloses that the dynamic device driver is useful for "providing two-way communication" and a "dynamic connection" between devices in a network [*Hanson*, column 2 «lines 1-5» | column 3 «lines 37-41»].

B. *Hanson* also discloses instructions that return data types, device types, and an operating status of components.

As cited above, *Hanson* also discloses returning data types (i.e., document types such as Postscript) supported by the first component, and device type (i.e., printer type) and operating status (i.e., printer status) of the first component which facilitates first component and second component to select a transfer medium for transferring data between the first and second components.

It would have been obvious to one of ordinary skill in the art to modify *Reed* to *Hanson*'s teachings of instructions for returning data types supported by the first component, a device type, and an operating status.. One would have been motivated to provide such a combination to

provide a means for *Reed* to obtain the supported data formats and types of a consumer computer as represented by *Hanson*'s feature.

C. *Hanson* discloses that the data types are independent of an operating system domain and at least one peripheral domain.

The new limitation is therefore interpreted as providing the data types separate from (i.e., independently) of the interfaces used to transfer the data. *Hanson* teaches this interpretation of the limitation.

Specifically, *Hanson* discloses that exchanging a device driver that comprises domain-specific interfaces between a peripheral (i.e., Applicant's second component) and host computer (i.e., Applicant's first component) [column 2 «lines 35-44»]. Thus, as in Applicant's invention, *Hanson*'s host computer is able to transfer data to the peripheral without having a priori knowledge of the peripheral's interface. That is, the host computer retrieves the peripheral's interface just prior to communicating with the peripheral and therefore did not have prior knowledge of the interface.

Hanson then teaches later selecting different data types based on the options provided in the device driver [Fig. 6 «item 72a» | column 7 «lines 20-25»]. Because *Hanson* discloses that the components may transfer data of different data types between themselves without having a priori knowledge of the domain-specific interfaces, *Hanson* teaches the new limitation as claimed.

It would have been obvious to one of ordinary skill in the art to have modified *Reed*'s content distribution system to include *Hanson*'s data types. One would have been motivated to provide such a combination to provide a means for *Reed* to obtain the supported data formats and types of a consumer computer as represented by *Hanson*'s feature.

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D. Independent claims 8, 12, 19, 23, and 30

As to claims 8, 12, 19, 23, and 30, they are rejected for at least the same reasons set forth for claim 1.

Claims 3, 14, 20, 25, and 31

As to claim 3, *Reed* as modified by *Hanson* discloses the second component sends a second DTSO to the first component to be used by the first component to receive the data [column 42 «line 31» to column 43 «line 14» | column 74 «lines 37-42»].

Claims 14, 20, 25, and 31 are rejected for at least the same reasons set forth for claim 3.

Claims 4, 15, 21, 26, and 32

As to claim 4, *Reed* as modified by *Hanson* discloses the second component receives the DTSO from the first component to receive the data transmitted from the first component [column 67 «lines 18-65»].

Claims 15, 21, 26, and 32 are rejected for at least the same reasons set forth for claim 4.

Claims 7, 11, 18, 22, 29, and 33

As to claim 7, *Reed* as modified by *Hanson* discloses the DTSO is configured to indicate completion responsive to an indication of the first component or to the at least one of the plurality of components that the data transfer has completed or failed [column 85 «line 60» to column 86 «line 10»].

Claims 11, 18, 22, 29, and 33 are rejected for at least the same reasons set forth for claim 1.

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Claim 9

Reed as modified by *Hanson* discloses the intermediary component sends the DTSO to the first component to be used by the first component to receive the data transmitted from the second component [Figure 1 | Figure 28 | column 12 «line 63» to column 13 «line 3» | column 14 «lines 43-53» | column 86 «lines 64-66» : transferring of the message object with the communications object and *Reed*'s distribution server corresponds to the intermediary component].

Claim 10

Reed as modified by *Hanson* discloses the intermediary component sends the DTSO to the second component to be used by the second component to receive the data transmitted from the first component [Figure 1 | Figure 28 | column 12 «line 63» to column 13 «line 3» | column 14 «lines 43-53» | column 86 «lines 64-66» : transferring of the message object with the communications object and *Reed*'s distribution server corresponds to the intermediary component].

Claims 34-36

As to claim 34, *Reed* as modified by *Hanson* discloses a method, comprising:
interfacing one or more peripherals to at least one computer [*Hanson*, Fig. 2]; and
negotiating data type information that is employed for communications between the one or more peripherals and the at least one computer [column 12 «lines 44-50» | column 14 «lines 39-60» & *Hanson*, Fig. 5: disclosing different “emulations” which consist of the data types supported by each printer (e.g., HDE/Meister supports Postscript file type)], wherein the data type information is independent of domain-specific interfaces associated with the at least one

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computer and independent of peripheral-specific interfaces associated with the one or more peripherals [*Reed*, column 22 «lines 56-59» | column 27 «lines 2-13» & *Hanson*, column 2 «lines 35-44» | Fig. 6 «item 72a» | column 7 «lines 20-25»].

See the rejection of claim 1 for reasons to combine *Hanson* and *Reed*.

Claims 35 and 36 are rejected for at least the same reasons set forth for claim 34.

V. CONCLUSION

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DOHM CHANKONG whose telephone number is (571)272-3942. The examiner can normally be reached on Monday to Friday [10 am - 6 pm].

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thu Nguyen can be reached on (571)272-6967. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/DOHM CHANKONG/
Primary Examiner, Art Unit 2452